

REMARKS/ARGUMENTS

I. Introduction:

Claims 1, 2, 10, 14, 15, 19, and 21 are amended and claims 23-25 are added herein. Reconsideration of claims 1-22, as amended, and consideration of new claims 23-25 is respectfully requested.

II. Claim Rejections Under 35 U.S.C. 103:

Claims 1-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,484,177 (Byrne et al.) in view of U.S. Patent Application No. 2002/0046286 (Caldwell).

Applicants respectfully submit that neither Byrne et al nor Caldwell show or suggest a method for integrating a network application with different directory servers without modifying application code at the network device, as set forth in the claims.

Byrne et al. disclose a method for using non-local data within a LDAP. The method is used to maintain authentication information in a distributed network of servers using LDAP directories. When a request to authenticate a user with a distinguished name is received, the cached directory entries and the local access control data are searched for the distinguished name and, once the distinguished name is located, the user is authenticated with each server in the non-local access server list. LDAP is used by Byrne et al. to query servers using an LDAP search request. As noted in the background at col. 1, lines 36-39, LDAP provides directory service enablement to a large number of applications. The use of conventional LDAP by Byrne et al. to query servers is a typical use of LDAP, which allows applications and users to access information from different directories. As set forth

below, Byrne et al. do not address the issue of directory servers having different schema as is addressed by the elements of applicants' claims. Byrne et al. collect resource information from different LDAP servers at a central server. They assume that all the servers use the same schema and therefore do not address the issue of mapping different attributes for servers using different schema.

Byrne et al. do not disclose storing an attribute mapping table which maps names utilized by the network application with corresponding attribute names used by the directory servers available to the network application. Byrne et al. build within a server a local cache of group information used for authentication purposes. In the example described at col. 6, lines 14-31, server1 builds a local cache of group information for server1, server2, and server3. In order to build the local cache, server1 sends queries to the other servers. The other servers return group information and associated attributes back to server1 so that server1 contains group information for remote servers. The group information for each server is shown in Fig. 4A. The group information simply contains information about users, including authentication information and associated attributes such as group manager and group members. Byrne et al. do not disclose mapping between attributes used by a network application and corresponding attribute names used by directory servers, where the attribute names used by the network device and directory server are different.

Furthermore, Byrne et al. do not disclose searching an attribute mapping table to identify the attribute name used by a directory server corresponding to the different attribute name used by the network application. In rejecting the claims, the Examiner refers to col. 2, lines 18-19 and 54-59, and col. 12, lines 15-20 of the Byrne et al. patent. These portions of the patent simply describe using a request to authenticate a user with a distinguished name in an LDAP server. For example, col. 12, lines 15-20 describe searching means for searching a directory on a first server

for directory entries comprising access server objects. Byrne et al. simply use conventional LDAP requests and searches in the group information table described above.

Applicants' invention, as set forth in the claims, is particularly advantageous in that the memory based attribute mapping table allows applications to be integrated with various directory services implementations without modifying application code. Thus reducing the need for customer support and for maintaining different directory server specific versions of application code. With conventional directory servers, such as disclosed in Byrne et al., schema used for one directory server often has to be modified to work with a different directory server and has to be modified in order to replicate or synchronize LDAP data on one server to another server of a different vendor. Therefore, every time an application has to operate with a new directory server, the code has to be modified. Applicants' invention, as set forth in the claims, eliminates these problems.

Furthermore, as noted by the Examiner, Byrne et al. do not disclose identifying the attribute name used by one of the directory servers corresponding to an attribute requested by the application. The Examiner cites Caldwell et al. as disclosing this aspect of the claims. The Caldwell et al. patent is directed to attribute and application synchronization in distributed network environment. A method includes mapping universal resource locator for internetwork access to at least one server, to respective message type data. A message type – to – application table is used to determine whether a message type is such that a message should be transmitted to a second server. A message type – to – server table maps message type to the identity of the first server. Caldwell et al. are concerned with determining whether a message type corresponds to a specific application module so that a server can run the application module corresponding to the message type data. Caldwell et al. do not show or suggest identifying an attribute name used by a directory server

corresponding to an attribute requested by the application.

Accordingly, claims 1, 10, 14, and 19 are submitted as patentable over Byrne et al. and Caldwell et al.

The claims depending from claim 1, 10, 14, and 19 are submitted as allowable for at least being dependent upon patentable base claims. Furthermore, at least some of these dependent claims should also be allowable in their own right. For example, the references cited do not show or suggest integrating a voice and unified messaging application with different directory servers, as set forth in amended claims 2, 15, and 21. Claims 9 and 11 are also further submitted as patentable over the art cited, which does not show or suggest accessing meta-data specifying directory servers available to the application.

III. Conclusion:

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608

Respectfully submitted,



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